Blood Day for Primary Care

Investigation of Lymphadenopathy Suspicious for Lymphoma

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Disclosures

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How do I investigate of lymphadenopathy suspicious for lymphoma?

FINANCIAL DISCLOSURE
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Other: none to disclose
Objectives

1. Identify patient findings that should prompt suspicion of lymphoma

2. To present a diagnostic approach to suspicious lymphadenopathy

3. Understand when during the diagnostic process to send a referral to CancerCare Manitoba and what accompanying information is required to facilitate prioritization and appointment scheduling
Introduction

- Lymphoma is the 5th most common cancer
- Five year survival rates high
  - 70% Non-Hodgkin Lymphoma (NHL), 85% (Hodgkin Lymphoma (HL))
- Time to diagnosis longer than other cancers
- Primary Care likely to diagnose one person with NHL every 2-3 years and one HL in career\(^1\)

1. You are seeing a 60 y.o. male for routine physical exam and find multiple palpable neck LN with the largest being ~ 2.5 cm. Assuming this mass is malignant what proportion do you expect to be lymphoma?

a) 15%

b) 25%

c) 50%

d) 75%
Work-Up of LYMPHADENOPATHY Suspicious for LYMPHOMA

RISK FACTORS: HIGH risk: immune deficiency (i.e. HIV or organ transplant), autoimmune disease +/- immune suppressing medications, and history of lymphoma

PRACTICE POINTS: **Consider your differential diagnosis** including reactive LN due to infection/inflammation, metastatic malignancy, and autoimmune disease.

- **Palpable Lymphadenopathy (LN)**
  - Abnormal LN = >2-3 cm, persistent enlargement & without obvious cause

- **History & Physical Exam**
  - **Consider your differential diagnosis**
  - CBC, HIV test, Chest X-ray

- **Lymphocyte Count**
  - YES
  - Order flow cytometry on peripheral blood (query CLL vs other lymphoma)
  - YES
  - Positive for CLL or monoclonal lymphocyte population
    - REFER TO CCMB
  - NO

- **High Suspicion / Concerning Features**
  - HIGH Risk Patients (as above)
  - LN + Abnormal Bloodwork (severe anemia, thrombocytopenia, pancytopenia)
  - Widespread LN +/- splenomegaly or bulky LN (mass >6cm)
  - Mediastinal mass
  - LN with rapid growth
  - LN & B symptoms (drenching sweats, unexplained fever, weight loss)
  - Patient symptomatic from abnormal LN (i.e. short of breath, abdominal pain)

- NO
  - Clinical Follow up

- YES
  - Persistent/progressive LN on exam or imaging

**Determining best site for diagnostic biopsy**
- Order CT scans if not already done
- Preference for site of biopsy:
  - Neck > Axillae > Inguinal > Mediastinal > CT guided
  - Neck LN: See Lateral Neck Mass Algorithm
  - Axillary or Inguinal LN: Surgery Consult for open biopsy
  - Mediastinal Mass: Refer to Thoracic Surgery
  - Intra-abdominal or retroperitoneal LN: Order CT guided biopsy

REFER TO CCMB

IF BIOPSY diagnostic / suspicious for lymphoma or suspicion of lymphoma remains

Pathways are subject to clinical judgment and actual practice patterns may not always follow the proposed steps in this pathway.
## Lymphoma Risk Factors

### Key

- ↑↑↑↑ RR > 5
- ↑↑ RR > 1

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<th>Risk</th>
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<tr>
<td>Age</td>
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<td>Male sex</td>
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<td>Familial history &amp; genetic susceptibility</td>
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<td>Immune suppression</td>
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<td>Autoimmune disease</td>
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Suspicion of Lymphoma

- Lymphadenopathy (LN) most common presentation NHL and HL
  - May be found incidentally (~30%)

**Palpable Lymph nodes**

- Most peripheral LN is benign….What makes LN “suspicious”
  - Size (> 2 cm), supraclavicular location, firm, painless
  - Symptoms/ findings along with LN may be what prompts suspicion
Suspicion of Lymphoma

Lymphadenopathy on Imaging

- Palpable LN
- Abdominal complaints common in NHL
- Abnormal chest x ray
- B symptoms
- Imaging done for other reasons

- How likely does the LN represent Lymphoma?
**Approach to Lymphadenopathy**

**HISTORY & PHYSICAL EXAM**

**Consider your differential diagnosis**

- Examine all LN group
  - Size, consistency, fixation, rapidity of growth
  - Local cause
    - Infectious, Malignant (head & neck cancer, breast cancer)
- Other lymphatic structures
  - Waldeyer ring, Liver, Spleen

CBC, Chest X-ray
Generalized Lymphadenopathy

**DIFFERENTIAL DIAGNOSIS**

- Infections – HIV, EBV, CMV, TB (generally localized), etc
- Neoplasm – lymphoma, leukemia
- Drugs
- Immune – SLE, RA, sarcoid
HIGH Suspicion of Lymphoma

CONCERNING FEATURES

HIGH Risk Patients
LN + Abnormal Bloodwork (severe anemia, thrombocytopenia, pancytopenia)
Widespread LN +/- splenomegaly or bulky LN (mass >6cm)
Mediastinal mass
LN with rapid growth
LN & B symptoms (drenching sweats, unexplained fever, weight loss)
Patient symptomatic from abnormal LN (ie: short of breath, abdominal pain)

• NO Concerning features close clinical follow up
  • Persistent LN (>4 weeks) proceed with investigation
Referral to Hematology

Case 1

Thank you for seeing [redacted], a 60 year old male patient. Seen April 28, 2014 - more rapid heart rate than usual - upper chest pressure - persistent cough. Chest x-ray ordered. A mass within the anterior superior mediastinum was seen and further evaluation with cross sectional imaging advised.

CT chest was done May 29/14 - it reported grossly enlarged anterior/middle/posterior mediastinal lymph nodes with soft tissue nodularity to the right pleura and bilateral pleural effusions. Lymphoma is the diagnosis of exclusion. The mediastinal soft tissue mass/nodes would likely be amenable to biopsy via mediastinoscopy if clinically indicated. Approx. 4-6mm nonspecific pulmonary nodule in the left lower lobe.

On following meds:
crestor, metoprolol 25mg bid, avodart, ranitidine 150mg bid

Allergies:
No Allergies recorded
Investigations

**SUSPECTED LYMPHOMA**

- **History & Exam, CBC, Chest X-ray**
- electrolytes, urea/Cr, AST, ALT, Alk Phos, GGT, bilirubin, Ca, albumin, LDH, uric acid
- SPEP, HIV
- **LYMPH NODE BIOPSY**
- CT neck/chest/abdomen/pelvis
Diagnosis of Lymphoma

**B I O P S Y  T Y P E S**

- FNA – exclusion metastatic carcinoma, **can not be used for definitive diagnosis**

- Core biopsy – if no easily accessible node

- Excisional/incisional LN biopsy always preferred
  - Diagnostic yield greater if LN > 2cm
    - SC>cervical = axillary> inguinal
Lymphoma Subtype Frequencies 2004-2009
Haematological Malignancy Research Network
When to refer to hematology

• Biopsy with lymphoma or suspicious of lymphoma

• **High Suspicion / Concerning features** – send consult early in process, call if you are worried about patient

• **INCLUDE:** physical exam & note regarding symptoms, CBC, lytes, urea/Cr, LD, Calcium, albumin, chest x-ray

• **ORDER:** CT neck/chest/abd/pelvis (Do not wait for results, just send the requisition and let us know it’s ordered)
Thank you for seeing [Masked], a 31 year old female patient. She initially felt pain along her left lower breast approximately 2 years ago. The discomfort was fairly stable but more recently it has been increasing in intensity and she states it is particularly bad when her child gives her a hug. She has also had a fullness over her left supraclavicular region for many years, and according to [Masked], it has not increased in size but does tend to swell and remit from time to time and is intermittently tender. A CXR was normal. A chest CT demonstrated diffuse lymphadenopathy and splenomegaly, and lymphoma is the most concerning diagnosis to rule out. She does endorse fatigue and feeling "hot" at night. She denies weight loss and she is quite obese.

Physical exam:
H&N: She does have a fullness over the left supraclavicular region but no discrete node is appreciated.
Chest: clear, no adventia
CV: S1/S2, no S3/S4, no murmur
ABDO: no masses appreciated, although exam limited d/t body habitus
Breasts: no masses, no axillary nodes
Groin: no nodes appreciated
PVS: no edema, pulses present b/l
Process when referral is received

- Reviewed by Triaging MD
- If no definitive diagnosis refer for biopsy
- Order labs & imaging, prioritize and assign
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Take Home Messages

• Main presentation of lymphoma is lymphadenopathy

• Presentation variable due to different types of lymphoma

• Patients high suspicion proceed with referral for diagnostic biopsy & to CCMB early
Questions?

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**Approach to an Adult with a Lateral Neck Mass**

**Suspicious Lateral Neck Mass**
- Mass > 2 – 3 cms
- Persistent > 3 weeks
- Associated with Symptoms
  - Head & Neck (H & N) malignancy (dyspnea, dysphagia, and hoarseness)
  - Lymphoma (weight loss, fever/chills, night sweats)

**Complete History & Physical (H & P) including:**
- Evaluation of Upper Aerodigestive Tract
- Full Body Lymph Node Assessment
- If suspicious for malignancy, refer for CT Imaging and Chest X-Ray

**Biopsy obvious H & N Primary**
- Fine Needle Aspiration Biopsy (FNAB) (repeat FNAB with image guidance if non-diagnostic)

**Suspected Benign/No Evidence of Malignancy**
- Observe Reassess in 4 – 6 weeks for Resolution
- Persistent after 4 – 6 weeks, no Resolution

**H & N Mucosal Malignancy or Suspect Metastases from H & N Primary**

**Lymphoma/Suspect Lymphoma/Past history of Lymphoma/High Suspicion with Predominate lymphocytes**

**Special Considerations**
- i. High Suspicion with Negative Tests
- ii. Cystic Mass
- iii. Undifferentiated Carcinoma

**Multidisciplinary Assessment Team - CCMB**

**2 – 4 Weeks**
- General Practitioner
- Expedited Urgent Referral to H & N Oncologist

**6 – 10 Weeks**
- Multidisciplinary Team